progression of a baseline VCF. Each metastatic spinal segment was also evaluated according to the six Spinal Instability Neoplastic Score (SINS) criteria (location, pain, bone lesion type, spinal alignment, posterolateral element involvement, bone lesion type, presence of a baseline fracture) to evaluate the predictive significance.

Results: The median spine RT total dose, dose per fraction, and number of fractions was 30 Gy (range, 8-60 Gy), 3 Gy (range, 1.2-18 Gy), and 10 fraction (range, 1-25), respectively. The median follow-up for the entire cohort was 10 months. Nine percent (23/267) had been previously irradiated, 8% (20/267) had a baseline VCF, and 47% (83/176) were lytic tumor. In all spinal segments, 33 VCF (33/267, 12%) were observed following RT, including 21 de novo fractures and 11 progressive fractures, and the median time to VCF was 4 months. The 1-year fracture free probability (FFP) was 85%. Multivariate analysis identified sex (p = 0.005), metastatic involvement (p = 0.012), prior RT (p = 0.006), and baseline VCF (p < 0.001) as predictors of VCF. Among 176 metastatic spinal segments, we observed 32 fractures (32/176, 18%) with 1-year FFP of 78.1%. Multivariate analysis showed that the risk of VCF in metastatic spine segments was statistically significant in patients with SINS class II/III with or without pre-existing baseline VCF (p < 0.001) and prior RT(p < 0.001).

Conclusion: The risk of VCF is higher in women patients with a baseline VCF and prior RT. Additionally, in metastatic spine segments, the risk of VCF is significant in patients with SINS class II/III with or without pre-existing baseline VCF and prior RT. SINS criteria can be used as an option for predicting VCF risk before performing RT specific to spinal metastases from CRC.

EP-1428

Routine Whole Body MRI of bone metastases may reduce the incidence of spinal cord compression

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Purpose or Objective: Metastatic spinal cord compression (MSCC) is a common oncological emergency resulting in significant morbidity and detrimental functional outcome. Population studies suggest an incidence of 3-7% in men with metastatic castrate resistant prostate cancer. In our centre, therapy monitoring of established bone disease in breast and prostate cancer is undertaken with whole body MRI scanning (WB-MRI). WB-MRI includes a dedicated spinal examination and diffusion weighted sequences that can aid in earlier detection of disease progression or response to treatment. The aim of this cross-sectional hypothesis generating study was to identify if routine WB-MRI reduces the rates of symptomatic MSCC in metastatic breast and prostate cancer patients.

Material and Methods: Patients with metastatic breast and prostate cancer who underwent≥2 WB -MRI scans between 2010-2014 were identified and cross-referenced with patients receiving emergency radiotherapy for symptomatic MSCC. The number of breast & prostate cancer patients, who had ≥2 WB-MRI scans and received emergency radiotherapy for MSCC were recorded.

Results: 63 patients with breast cancer and 89 patients with prostate cancer received emergency radiotherapy for MSCC between 2010-2014. Of the 365 patients with breast cancer who had ≥2 WB -MRI scans, only 1 (0.3%) patient underwent emergency radiotherapy for MSCC. 102 patients with metastatic prostate cancer had≥2 WB -MRI scans of which 2 (2.0%) had emergency radiotherapy for MSCC.

Conclusion: Rates of symptomatic MSCC in this series of patients undergoing regular WB-MRI scans for therapy monitoring of bone disease are low. Routine WB-MRI may aid in the early detection of disease progression in the bones, allowing earlier change in systemic therapy or the use of prophylactic radiotherapy particularly for incipient cord compression. This data generates the hypothesis that WB-MRI may prevent progression of bone disease and development of symptomatic MSCC. This has the caveats that the population studied was selected and in particular had relatively stable disease that permitted the routine use of WB-MRI. It is possible that the morphological spinal MRI examination component, rather than the diffusion weighted sequences, may provide much of the utility of the WB-MRI examination. Further prospective studies are required to confirm our findings.

EP-1429

Phase II study of short-course accelerated palliative radiation therapy for advanced H&N tumours

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Purpose or Objective: To assess the effectiveness of a SHort-course Accelerated RadiatiON therapy (SHARON) in the palliative treatment of patients with advanced primary or metastatic H&N tumors.

Material and Methods: A phase II clinical trial was planned based on optimal two-stage Simon's design. Eligibility criteria included patients with an Eastern Cooperative Oncology Group performance status of ≤3. Twenty-three patients were treated with H&N radiotherapy at 20 Gy (5 Gy per fraction) in 2 days with a twice daily fractionation. The primary endpoint was the assessment of efficacy in terms of symptoms relief.

Results: Characteristics of the enrolled patients were: male/female: 9/14; median age: 83 years (range: 40-98). Eastern Cooperative Oncology Group performance status was <3 in 11 patients (47.8%). Grade 1-2 acute skin (60.9%) and mucositis (39.1%) toxicities were recorded. Only one patient (4.3%) experienced grade 3 acute mucositis. With a median follow-up time of 4 months (range, 1-32 months) 3 skin grade 1 and 2 skin grade 2 late toxicities have been observed. Of the 23 symptomatic patients, 21 showed an improvement or resolution of baseline symptoms (overall palliative response rate: 91.3%). Three-month overall survival was 89.7% (median survival time: N.R.). Median survival without symptoms